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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,023

02/17/2004

Toshimi Sakurai

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33031

7590

07/18/2006

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EXAMINER

KING, JUSTIN

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/780,023	Applicant(s) SAKURAI ET AL.	
	Examiner Justin I. King	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The Specification recites "PCI bridge 58" on the 5th line of the paragraph 11. Applicant may have meant "PCI Express bridge 58" instead of "PCI bridge 58". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 15 is rejected under 35 U.S.C. 102(a) as being anticipated by PCI Express™ to PCI/PCI-X Bridge Specification.

Referring to claim 15: The Specification discloses a PCI data bus (figure 1-2, connection between the PCI Express to PCI bridge and PCI device), a first circuit (figure 1-2, a PCI device), a second circuit (figure 1-2, the PCI Express to PCI bridge), wherein the second circuit is configured to transmit data to a PCI-Express bus, and wherein the PCI data bus transmits data only between the first and second circuits. Hence, the claim is anticipated by the PCI Express™ to PCI/PCI-X Bridge Specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Petty et al. (U.S. Patent No. 6,594,712).

Referring to claims 1, 6, and 15: The admitted prior art discloses an existing PCI practice including a first circuit (figure 3, structure 42) configured to receive first data (data received from structure 40), wherein the first circuit is configured to translate the first data into PCI formatted data and a PCI data bus (figure 3, structure 32). The admitted prior art does not disclose a second circuit coupled to the first circuit via the PCI data bus, wherein the second circuit is configured to receive the PCI formatted data from the first circuit via the PCI data bus, wherein the second circuit is configured to translate the PCI formatted data received from the first circuit into PCI-Express formatted data; wherein the PCI data bus is configured to transmit data between only the first and second circuits.

Petty discloses a computer system wherein the PCI protocol is adapted onto the

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Infiniband architecture. Petty teaches one to expand the bandwidth to support more PCI devices with the Infiniband architecture. Petty discloses that PCI devices can be easily adapted onto other bus protocol. Petty discloses a first circuit (figure 2, structure 206) receiving I/O data and a second circuit (figure 2, structure 202) coupled to the first circuit to translate data into Infiniband format. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Petty's teaching onto the admitted prior art because Petty teaches one to support more PCI devices by adapting PCI devices onto a higher bandwidth bus protocol.

Referring to claims 2, 7, 11, and 14: Since the PCI-Express system can accommodate a plurality of PCI-Express devices, a second PCI device with a second interface adapter is the claimed second PCI data bus, third circuit. And fourth circuit.

Referring to claims 3 and 8: Petty's second circuit is a protocol adapter, which connects to a non-PCI bus. Since Petty's adapter connects a PCI device to a non-PCI bus, Petty's adapter's means for translating the different bus protocol is the claimed translator circuit.

Referring to claims 4-5, 9-10, and 12-13: The admitted prior art discloses that it is known to integrate the interface circuit, the core circuit, and the connecting bus in between on one printed board (figures 3 and 5). Furthermore, the MPEP 2144 has stated that forming in one piece an article, which has formerly been formed in two pieces and put together involves only routine skill in the art.

Conclusion

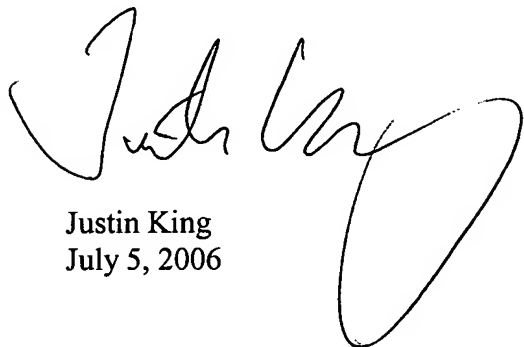
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 571-272-3628. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632 or on the central telephone number, (571) 272-2100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

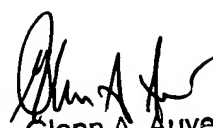
Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests

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to restart a period for response due to a missing U.S. patent or patent application publications
will not be granted.

A large, stylized handwritten signature in black ink, appearing to read "Justin King".

Justin King
July 5, 2006

A handwritten signature in black ink, appearing to read "Glenn A. Auve".

Glenn A. Auve
Primary Patent Examiner
Technology Center 2100